

## PROGRAMMER'S UTILITIES

### Useful programming aids

This package contains a wide variety of useful programs to help the BASIC and Assembler programmer to get the most from the Commodore 64. It includes four main groups of utilities: Disk Handling, Machine Code Programming, Graphics and Sound.

**The Disk Handling utilities include:**

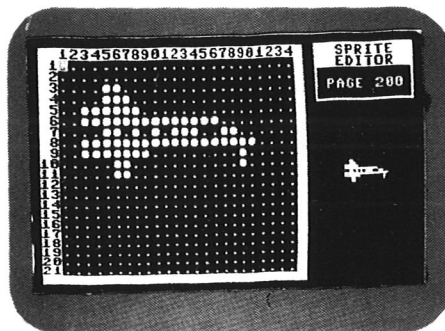
- ☐ change disk unit device number
- ☐ a 'copy-all' program to enable programs to be copied between 4040 and 8050 diskettes
- ☐ a 1541 single drive back-up program
- ☐ a DOS wedge providing shorthand disk/file handling commands
- ☐ a program allowing a file to be displayed in hexadecimal form

**The Machine Code utilities comprise:**

- ☐ a routine to display the load address of a machine code program
  - ☐ SUPERMON – a machine code monitor which allows you to:
    - display memory contents
    - display register contents
    - hunt through memory
    - enter an assembler instruction
    - disassemble code
- and much more.

**The Graphics utilities include:**

- ☐ a character editor allowing you to create and store up to five user-defined character sets
- ☐ a sprite editor which enables you to design sprites within a grid on the screen and then store them for use in your BASIC and/or Assembler programs



SPRITE EDITOR

The **Sound** utilities included in the package are contained in the SIDMON program. This allows you to experiment with the 6581 SID (sound interface device) chip. When you have found a type and quality of sound that you wish to use, you can then jot down the figures in the various registers and use these values to produce the sounds within your programs.

A **PET Emulator** program is also included in the package. This allows you to load, save and run most programs written on Commodore machines using BASIC version 2.0 or less.

In addition to the programs above, the package also contains a comprehensive Screen Editor program which simplifies the design of screen layouts and the validation of user input.

Product No. UTL 6440

Specifications of software and hardware are correct at time of going to press, but are subject to alteration at any time.

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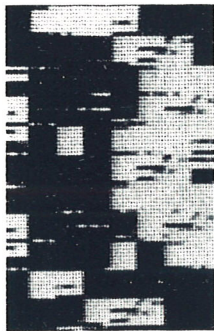
## PETSPEED BASIC compiler

PETSPEED is a BASIC compiler that allows you to speed up execution of your BASIC programs. Already widely used on other models of Commodore computers, a version has now been specially developed for the Commodore 64.

Petspeed will compile *any* program written in BASIC without any prior changes having to be made to the program. A Petspeed-compiled program cuts down on processing time, disk handling and even print runs. The compiled program runs up to forty times faster than the original.



A



B

A) A PETSPEED-COMPILED PROGRAM PRODUCED THIS ILLUSTRATION IN THREE SECONDS

B) THE SAME PROGRAM IN BASIC WITHOUT PETSPEED ONLY REACHED THIS POINT IN TWELVE SECONDS

Petspeed is very simple to operate. Just type in the name of your program and sit back while Petspeed begins the first of four compiling passes. Petspeed will automatically abort if a program error is found during compilation. Like most BASIC compilers, Petspeed does much faster integer arithmetic, but, unlike previous compilers, Petspeed can find variables that always contain integers and even variables that sometimes contain integer values. The Petspeed compiler *never* does floating point arithmetic if integer would suffice.

Expressions are evaluated as far as is practicable during compilation, e.g. a statement such as `A$ = CHR$(72)` would be converted into `A$ = "H"`. Petspeed even does this if the characters are non-printable like `CHR$(13)`. Numeric data statements are held in both integer and ASCII format removing the need to make conversions during run time. Also included on the Petspeed diskette is a *report* program which allows you to list all arrays and user-defined functions and the addresses in the compiled program where they are used. The *RUN/STOP* key is disabled by default on *all* compiled programs and can be enabled or disabled in a program using simple, one-word commands.

Petspeed is completely user-transparent. No special data key is needed to run Petspeed-compiled programs. The onus on protection is left entirely to you. Petspeed is currently being used by such prestigious companies bodies as:

- ☐ ICI
- ☐ ESSO
- ☐ Marconi Space and Defence
- ☐ CEGB
- ☐ and The Metropolitan Police

Product No. PSP 6440

Specifications of software and hardware are correct at time of going to press, but are subject to alteration at any time.

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# COMAL

## Structured programming language

COMAL (COMmon Algorithmic Language) is a computer language that combines the ease of BASIC with the structure of PASCAL. Because COMAL is easy to learn and powerful to use, it is an ideal first computer language.

The major drawback with teaching or learning BASIC as a first language is the lack of program structure. Long programs can become difficult to read. For this reason, COMAL was developed.

```

1111 910-1099
1112 //
1113 func checkmove(move)
1114 decimalno:=vector(move); movecount
1115 :=0
1116 for bit:=1 to 9 do
1117   binarytodec:=decimalno mod 2+bit
1118   decimalno:=binarytodec
1119   if binarytodec<0 then
1120     if bit=9 then
1121       if cell(bit)=1 then movecount:=+
1122     else
1123       if cell(bit)=0 then movecount:=+
1124   endif
1125   endfor bit
1126   return movecount mod 2
1127 endfunc checkmove
1128

```

SAMPLE LISTING

COMAL provides the user with a wide range of structured programming commands. These include:

- ☐ PROC – to label a procedure within a program
  - ☐ EXEC – to execute a named procedure
  - ☐ REPEAT ... UNTIL – to repeat a section of code until a pre-defined condition is met
  - ☐ WHILE ... DO ... ENDWHILE
- and many more.

COMAL also provides multiple condition-testing commands such as:

- ☐ IF ... THEN ... ENDIF
  - ☐ CASE ... OF ... WHEN ... OTHERWISE
- to name but two.

Together with the commands above, COMAL also has a wide variety of programming aids such as:

- ☐ AUTO – for automatic program line numbering
  - ☐ RENUMBER – to renumber program lines
  - ☐ DELETE – to delete a range of program lines
  - ☐ a command to LOAD a program from diskette or cassette and RUN it automatically
  - ☐ commands for integer division
- and much, much more.

The range of commands provided by COMAL, and their simplicity of operation, makes it an ideal first language for the newcomer to computing. Even the experienced programmer will quickly discover how easy it now is to write powerful, structured programs.

Diskette version available in June.  
Cartridge version available at a later date.

Product No. CML 6440/6410

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## PILOT and LOGO Educational graphics languages

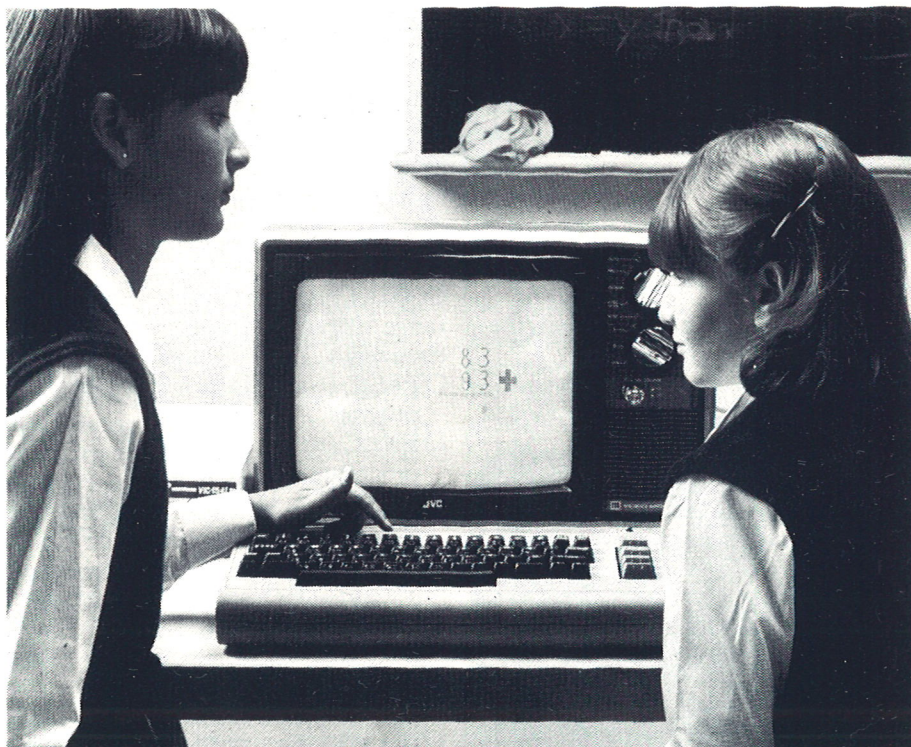
### PILOT

PILOT is a Computer Aided Learning (CAL) language especially designed for the teaching/training environment. It allows educators to compose lessons and tests which their students then answer via the computer keyboard. The facilities offered by Pilot include:

- ☐ commands to design special screen frames
- ☐ commands to include computations within questions
- ☐ facilities to plot graphics
- ☐ an answers section which is able to accept alternative responses
- ☐ hints for the student

The original version of the Pilot language is known as 'common Pilot'. 'Commodore Pilot' is a revised and improved version of this language specially written for users of the Commodore 64. It contains all the features of 'common Pilot' so that lessons written in the original version can be quickly implemented by Commodore Pilot users.

In addition to the 'common Pilot' features, the Commodore version has been supplemented to take advantage of the extensive capabilities of the Commodore 64 including sprite graphics and user-defined characters. An excellent Pilot manual is supplied with the package so that even the novice computer user will quickly become proficient in developing Computer Aided Learning tuition for his particular teaching/learning need.



### LOGO

LOGO, the popular Computer Aided Instruction language is now available for the Commodore 64. All the traditional LOGO features are included such as:

- ☐ graphics definition and movement
- ☐ text display
- ☐ multi-level graphics character display
- ☐ easy-to-use instructions.
- ☐ screen editing from the keyboard

Children have great fun moving the famous 'turtle' around the screen creating

colourful designs. Logo is useful not only for art and design but also for teaching English, Mathematics, Physics, in fact any subject.

In conjunction with the standard Logo features, additional commands have been added to facilitate the use of sprite graphics and sound synthesis on the Commodore 64.

Commodore Logo works with Commodore Pilot and together they make a very powerful learning/teaching environment.

Note: PILOT and LOGO are sold as two separate packages.

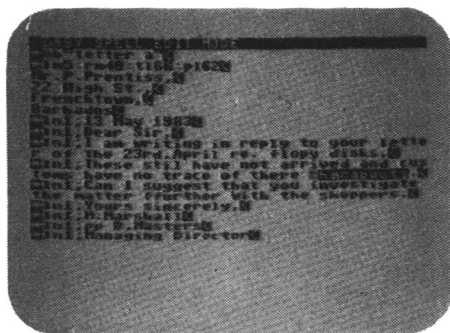
PILOT Product No. PLT 6440  
LOGO Product No. LGO 6440

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**EASY SPELL** is a spelling checker for files produced by the **EASY SCRIPT** word processing package. It can be used to check text in individual Easy Script files or text that is spread over files that have been linked together. The Easy Spell package comes complete with a dictionary diskette. This contains the words against which the spelling of text is checked.

The illustration below will be familiar to many authors, writers and secretaries, several mis-spelt words appear in the text.

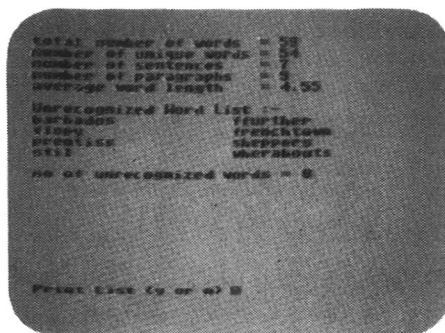


EACH UNRECOGNIZED WORD  
IS HIGHLIGHTED

Using Easy Script and Easy Spell, this need never occur. Having typed in the letter using Easy Script, the user then loads Easy Spell and checks the letter. The text is read into the computer and the spelling of each word is checked against the dictionary words. A report is presented giving details of:

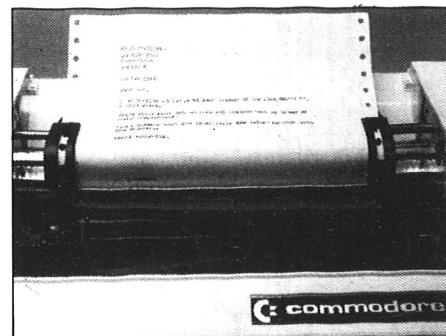
- ☐ the total number of words
- ☐ the number of different words
- ☐ the number of sentences
- ☐ the number of paragraphs
- ☐ the average number of characters in each word.

Easy Spell then displays a list of 'unrecognized' words, i.e. those that are not on the dictionary diskette. If you choose to edit your file, each 'unrecognized' word is highlighted on the screen. At this point, mis-spelt words may be corrected and extra words added to the user dictionary. The following photograph shows how the letter would look on the screen with the first unrecognized word highlighted.



## AN UNRECOGNIZED WORD LIST

If the spelling of a word is wrong, it can be corrected using the normal Easy Script editing facilities. Words that have not been included in the Easy Spell vocabulary may be added to it and their spelling checked in future text. (This is especially useful when dealing with those writers who use a lot of technical terms.) When the letter has been edited, it can then be printed out – minus the mistakes!



## A PERFECT LETTER

Easy Spell also provides a facility for you to produce a word-frequency report, i.e. a list of the words in the file and the number of times each word has been used. The report may be printed in alphabetical order or in ascending or descending order of frequency.

A further Easy Spell facility allows you to search the dictionary for words where a character or series of characters is in a defined position (ideal for crossword addicts!)

Approximately 20000 words are supplied on the Easy Spell dictionary diskette. These are held in a Master Dictionary. (An extended Master Dictionary containing 32000 words can be purchased separately.) You can choose Master dictionaries with English spelling variants, American variants or a combination of both. Alternative master Dictionaries may be purchased from your local Commodore stockist. The size of your dictionary may be increased by 'learning' any word that has not been included in the Master Dictionary. These new words are added to a special section of the dictionary diskette called the 'User Dictionary' and will then be checked for spelling in future text.

## HARDWARE REQUIREMENTS

To use Easy Spell you require:

- ☐ Commodore 64 computer
- ☐ a suitable TV or monitor
- ☐ a VIC 1541 disk unit
- ☐ a printer

The VIC 1541 disk unit can be replaced by a CBM 2031 single disk drive or a dual disk unit (4040/8050). These require the use of an IEEE interface.

### PRINTERS

Easy Spell can be used with a variety of printers ranging from the low cost dot matrix type such as the 1525 or 1526 to the more expensive letter-quality printers such as the CBM 6400. The latter requires an IEEE interface. Alternative printers supported by Easy Spell include:

#### Commodore Printers

- ☐ 4022P
- ☐ 8023P
- ☐ 8300
- ☐ 6400

These all require the use of an IEEE interface.

#### Other Printers

- ☐ DIABLO 630
- ☐ Smith Corona TP1 and EL2000
- ☐ OKI Microline
- ☐ MX 80

These require the use of a Commodore 1011A RS232C interface or equivalent. Easy Spell also supports Centronics printers. These require a special connecting cable.

A blank Master Dictionary is also available. This contains no pre-defined words thereby allowing the contents of the dictionary diskette to be built up from scratch. This is especially useful in education for English and remedial teachers who wish to check on the use and development of their pupils' vocabulary.

Easy Spell consists of Easy Spell program diskette and Easy Spell dictionary diskette. Requires Easy Script (cartridge or diskette).

Product No. ESP 6440

Specifications of software and hardware are correct at time of going to press, but are subject to alteration at any time.

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Postbus 720, 4803 AS Breda Marksingel 2<sup>e</sup>, 4811 NV Breda Telefoon 076 - 22 30 33/14 79 22 Telex 54992

## ASSEMBLER TUTOR

### Advanced programming course

The ASSEMBLER TUTOR package is a must for all would-be machine code programmers. It will also be valuable to those programmers who already know something about assembly language programming but wish to expand their knowledge of 6502 machine code.

The package can be used both as a self-test tutorial or as a teaching aid in a classroom environment. One of the main features of the Assembler Tutor package is that it allows the programmer to proceed at his own pace. If a topic is not fully understood, the user can go back over it or, if a subject comes up that has been learned, it can be skipped.

The Assembler Tutor is divided into three modules. Each module covers one aspect of assembly language programming and contains an introduction, a self-test and discussion of various aspects of assembly language programming.

#### MODULE 1: INFORMATION REPRESENTATION

This module explains how data is held in memory and how logical operations work. It includes instructions on:

- ☐ binary numbers and binary arithmetic
- ☐ sign conventions and binary coded decimal
- ☐ hexadecimal notation

#### MODULE 2: HARDWARE AND INSTRUCTIONS

Here the inner workings of the Commodore 64 are discussed and an introduction is given to the 6502 instruction set. The module contains information on:

- ☐ the Commodore 64 architecture
- ☐ using the STACK and the 6502 registers
- ☐ addressing modes and techniques and interrupts

#### MODULE 3: SOFTWARE AND PROGRAMMING

This module is designed to get the programmer started in developing his own machine code routines and programs. It covers:

- ☐ building programs in assembler and machine code
- ☐ linking machine code with BASIC and programming exercises

In Module 3, the self-test takes the form of several programming exercises.

A User Handbook is provided with the package but the vast majority of teaching information is displayed on the screen. For further reference, the programmer should have a good machine code 'primer' at his side such as: 6502 Assembly Language Programming by Lance Leventhal or 6502 Assembly Language Programming by Rodney Zacks.

The Assembler Tutorial contains 30 programs available on diskette or cassette.

Product No. AST 6440/6420

Specifications of software and hardware are correct at time of going to press, but are subject to alteration at any time.



# FUTURE FINANCE

## Financial planning

FUTURE FINANCE is a comprehensive, low-cost, financial planning package that has been designed for the Commodore 64. It enables you to predict your company's profit and cash-flow position based on the effect of projected changes on the company's overall performance. Reports can be produced showing the contribution to profits made by each product and the cash-flow position at the end of each defined period.

The information in Future Finance is entered in either twelve or thirteen periods. The length of each period is entirely up to you and can be days, weeks, months, four-weekly cycles – in fact any time interval. Statistics can be produced to view the contribution made to profits by individual products or the combined effect of all production on the company's future performance. Future Finance also allows you to introduce a growth factor to take into account the effects of inflation or increased production.

Future Finance is wholly menu-driven which means that you set up each model via a list of options on the screen. There is no need to enter complicated formulae yourself. Sales, production and cost figures are entered from the keyboard and Future Finance calculates gross and net profit figures automatically for every product over each period within the model.

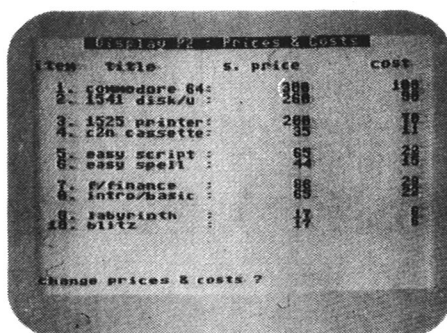
A further facility provided by the Future Finance package allows you to view the effect of customer credit on your cash-flow position. By analysing these figures, you can decide if the length of time customers are given to pay their bills should be reduced.

The program allows you the option of consolidating models you have set up for

your company, of particular parts or departments of your company, or of separate products or sales items. These models are set up and stored on diskette and then consolidated together in any combination required to view the prospects of particular sections of your company or ranges of products.

The following screens take you through the main steps of Future Finance showing what details you enter into the package and the information Future Finance then gives you.

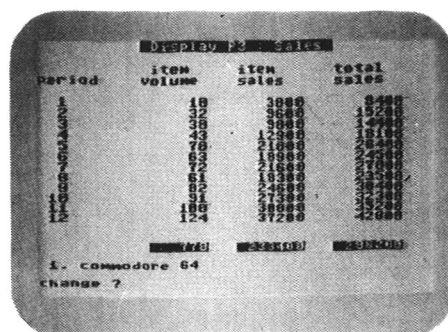
- 1 Enter the selling price and the cost price of each item you sell and this will generate the following screen:



Item	Title	S. price	Cost
1	Commodore 64	380	180
2	1541 disk/u		
3	1525 printer	295	17
4	220 cassette		
5	8850 script	95	30
6	8850 spell		
7	FF/finance	85	25
8	intro/basic		
9	2400000	17	8
10	blitz		

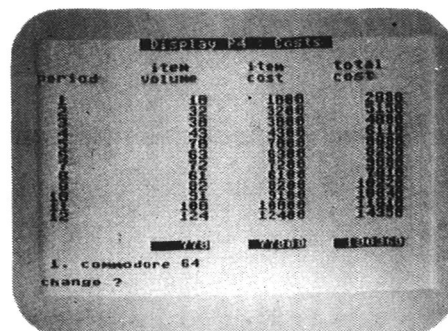
Change prices & costs ?

- 2 Then enter the projected volumes of these sales items. The following three screens show the sales volumes for each month for one sales item. The first screen shows the sales volume resulting from the sales, the second screen shows the resulting cost and the third screen shows the resulting gross profit for that one sales item.



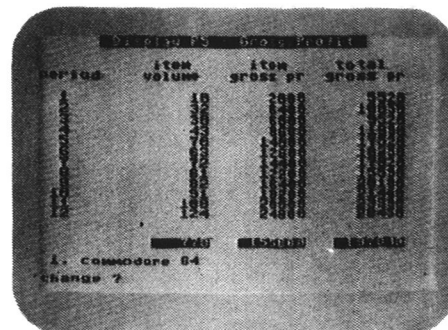
Period	Item volume	Item sales	Total sales
1	1	380	380
2	1	380	380
3	1	380	380
4	1	380	380
5	1	380	380
6	1	380	380
7	1	380	380
8	1	380	380
9	1	380	380
10	1	380	380
11	1	380	380
12	1	380	380

1. Commodore 64  
change ?



Period	Item volume	Item cost	Total cost
1	1	180	180
2	1	180	180
3	1	180	180
4	1	180	180
5	1	180	180
6	1	180	180
7	1	180	180
8	1	180	180
9	1	180	180
10	1	180	180
11	1	180	180
12	1	180	180

1. Commodore 64  
change ?



Period	Item volume	Item gross pr	Total gross pr
1	1	200	200
2	1	200	200
3	1	200	200
4	1	200	200
5	1	200	200
6	1	200	200
7	1	200	200
8	1	200	200
9	1	200	200
10	1	200	200
11	1	200	200
12	1	200	200

1. Commodore 64  
change ?

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- 3 You then enter the expected overheads (expenses) for the next 12 months and Future Finance calculates the Net Profit of your company:

- 4 The next step is to enter all the payments you intend to make against these expected expenses, and the payments you expect to make for your projected purchases. Future Finance then works out the cash-flow for your company for the next twelve months.

- 5 Enter the VAT (tax) rates for all your sales items, expenses (overheads) and purchases and Future Finance calculates a tax report for your company showing your projected tax position over the next twelve months.

You can then easily alter any details entered into Future Finance as you wish and quickly see the effect of the changes made. This makes Future Finance invaluable when you are looking at the various courses of action you could take and considering the future of your company or department.

Any of the details of the model of your company can be printed out at any point in setting it up, when it is complete or after you have made changes to it. There are a variety of reports which include:

- ☐ volume of sales
- ☐ purchase costs
- ☐ production costs
- ☐ expenses
- ☐ sales, purchase and expense taxes
- ☐ gross and net profit

At any point the information you have entered into Future Finance can be stored on diskette for future reference, or for consolidation with other information also stored on diskette so that the combined effect of all the information can be seen.

## HARDWARE REQUIREMENTS

The basic Future Finance system consists of:

- ☐ Commodore 64 computer
- ☐ a suitable TV or monitor
- ☐ a 1541 disk unit
- ☐ a 1525 printer

The VIC 1541 disk unit can be replaced by a CBM 2031 single disk drive or a 4040 dual disk unit. These require the use of an IEEE interface.

Product No. FFI 6440

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# SIMONS' BASIC

## Additional programming commands

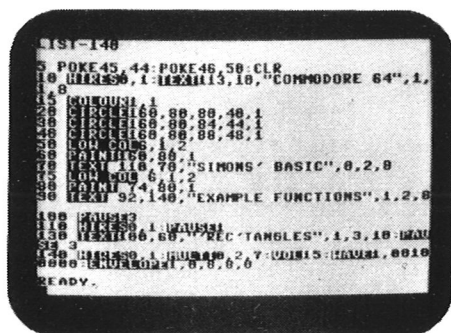
SIMONS' BASIC has been designed to enable programmers of all levels to easily utilise the potential of their Commodore 64. The Simons' Basic cartridge is really three packages in one. It contains a Toolkit to remove the tedious aspects of computer programming, a vast range of commands to facilitate the use of graphics and sound on the 64 and Structured Programming commands to help the programmer write more meaningful code.

The package is supplied in cartridge form which means that you can use all of its features by simply inserting it into the slot at the rear of the Commodore 64 and turning the computer on – it's as simple as that. You then use the additional Simons' Basic commands just as you would any other BASIC commands.

Among the features of the toolkit are:

- ☐ AUTO for automatic line numbering
- ☐ RENUMBER for automatic program re-numbering
- ☐ KEY to assign commands to the function keys

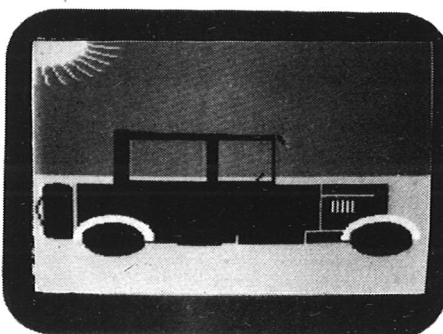
and many more.



KEY WORDS LISTING

Graphics commands include:

- ☐ COLOUR to assign colours to the screen and border
- ☐ HI-RES to put the screen into high-resolution mode
- ☐ REC to draw a rectangular shape
- ☐ CIRCLE to draw a circular shape
- ☐ PAINT to fill a shape with colour



GRAPHIC DEMONSTRATION

plus commands for creating sprites and user-defined graphics:

- ☐ DESIGN to set up a design grid for a sprite or user-defined character
- ☐ MMOV to move a sprite
- ☐ DETECT to detect sprite collision

The Structured Programming commands supplied by the Simons' Basic cartridge are a boon to programmers of all levels of ability. It is now possible to label BASIC routines and call these routines by name.

Structured Programming commands include:

- ☐ PROC to label BASIC routines
- ☐ CALL to pass execution to a routine
- ☐ EXEC to pass execution to a routine and return from it when the routine has been completed
- ☐ REPEAT . . . UNTIL to repeat a loop dependent on a condition test

and many others.

Simons' Basic also includes commands for screen formatting, scrolling the screen, input validation, character string manipulation, hexadecimal to decimal and binary to decimal conversion, integer division among others. The cartridge also has a group of commands which allow you to trap certain BASIC errors. You can even generate your own error messages! The range of commands supplied by the Simons' Basic cartridge make it an essential tool for any programmer who wants to easily utilise the special features on the Commodore 64.

Works with cassette or disk unit for program storage.

Product No. SIB 6410

Specifications of software and hardware are correct at time of going to press, but are subject to alteration at any time.

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## CLUB MANAGER

### Membership and booking records

CLUB MANAGER has been designed to aid in the smooth running of sports clubs, social clubs, associations – in fact any organization that needs to maintain accurate membership records.

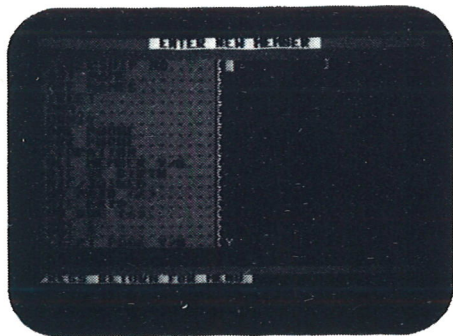
Club Manager allows you to record the details of all the members of your club on diskette, much as records are stored within a filing cabinet. Membership details can be amended where necessary and records can be added to or deleted from the membership file. Club Manager provides facilities to enable information to be extracted from the membership file to produce membership lists, subscription reminders, address labels, and, because the package can be linked to the EASY SCRIPT word processor, personalized copies of standard letters.

Club Manager also has a booking facility allowing you to enter details of when members wish to use squash courts, tennis courts, snooker tables, restaurant tables, dance tickets or any similar club facility or activity. Details relating to the use of a club amenity can be displayed before a booking is accepted. This means that overbooking need never occur.

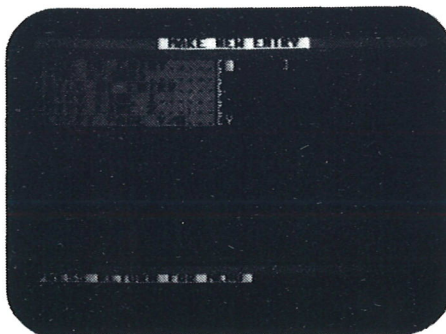
Club Manager is an ideal tool for the club owner or club secretary and will greatly reduce the amount of time spent on maintaining membership records and booking club facilities.

Available in August

In addition to membership and booking details, Club Manager also allows you to maintain a diary and use it to record/amend details of appointments, meetings, etc. Diary entries can be changed or deleted as required and a printed copy produced for checking.



A MEMBERSHIP RECORD SCREEN



A DIARY ENTRY SCREEN

Product No. CMG 6440

Specifications of software and hardware are correct at time of going to press, but are subject to alteration at any time.

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## Learn computer programming with GORTEK

This is a series of packages designed to teach young people the fundamentals of computer programming by coupling a space adventure story with lessons in BASIC programming.

Each package comes complete with a full colour story book which also serves as the Training Manual. Throughout the manual there are programs to be typed into the computer by the 'trainee'. At various points, there are games and exercises to be loaded from the cassettes provided. These form an integral part of the story and also reinforce the learning process.

The authors of the series are three English school teachers who originally intended it to be used by children in the 10 to 13 age group. However, with parental guidance, it is also suitable for younger children. Older children and even adults find that GORTEK is informative and fun to use.

### PART ONE: GORTEK AND THE MICROCHIPS

The planet of Syntax is being invaded by the fearsome Zitrons. GORTEK, the galaxy's foremost authority on computer programming, is working desperately to teach the microchips and the children to program the great computer 'creativity' in order to thwart the attack.

The package contains instructions on:

- ☐ using the PRINT command
- ☐ LOADING programs from cassette
- ☐ RUNNING programs
- ☐ NEWING programs
- ☐ LISTING programs
- ☐ string and numeric VARIABLES
- ☐ program LOOPS
- ☐ the INPUT command
- ☐ using ARITHMETIC operators

At the end of the story, the computer is saved by the efforts of the children and the microchips. Successful trainees earn the right to wear the GORTEK badge which is supplied with the package. Also included in the package are two cassettes containing 12 educational and recreational programs.

### PART TWO: GORTEK AND THE KRYPTOBYTES

A message has been received from the Kryptobytes, the inhabitants of a nearby planet. Their computer is being attacked by a mysterious force from outer space and they need the help of GORTEK and the children to program the computer and so save it from destruction.

This package introduces some new BASIC commands and reinforces those commands covered in Part One of the series. The programs that the 'trainee' must write are consequently longer and more involved.

The package contains instructions on:

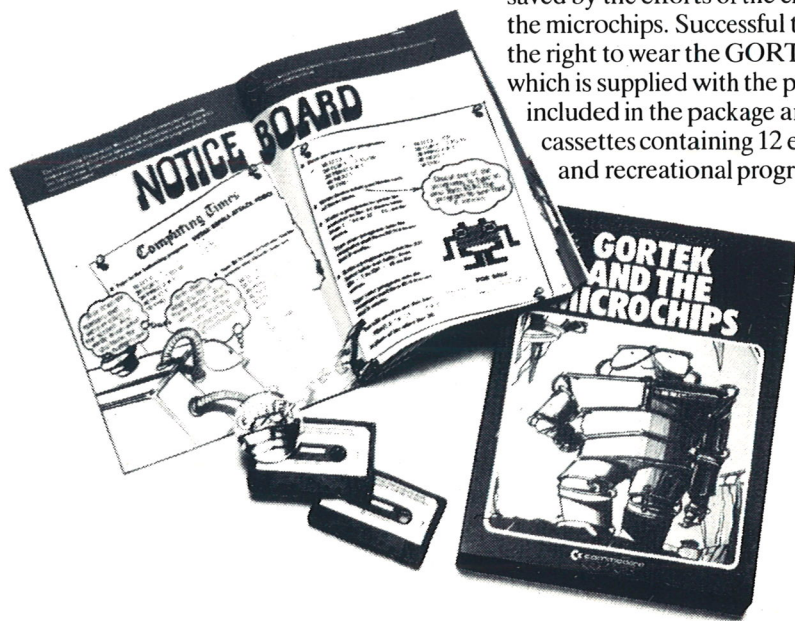
- ☐ FOR . . . NEXT loops
- ☐ REM statements
- ☐ DATA statements
- ☐ READING DATA
- ☐ using the POKE commands
- ☐ subroutines
- ☐ editing programs
- ☐ saving programs on cassette

Armed with these commands, the new programmer will soon be writing programs to help the Kryptobytes ward off the attack.

GORTEK and the Kryptobytes – available in August.

Note: Part One and Part Two of GORTEK are sold as two separate packages.  
Microchips Product No. GMC 6420  
Kryptobytes Product No. GKB 6420

Specifications of software and hardware are correct at time of going to press, but are subject to alteration at any time.



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## Introduction to BASIC Programming course

The highly popular self-tutorial package for the VIC 20 has been revised and improved for those who wish to learn BASIC programming on the Commodore 64. It covers all aspects of BASIC programming together with instructions on how to use those features of the Commodore 64 that are unique to this machine.

The course is divided into two packages.

Part One contains instructions on the elementary aspects of BASIC programming on the 64 and includes:

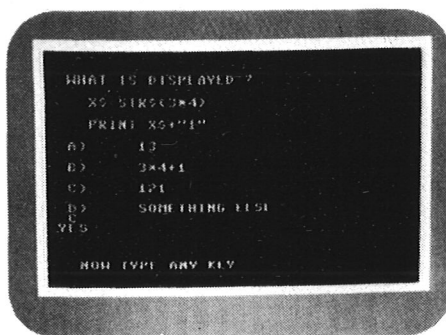
- ☐ how to set up the machine
- ☐ a tour of the keyboard
- ☐ how to use variables
- ☐ strings
- ☐ program loops
- ☐ inputting data from the keyboard
- ☐ programming colour and sound

Part Two covers the more advanced BASIC commands and 64 features such as:

- ☐ condition testing
- ☐ arrays
- ☐ string manipulation
- ☐ file handling
- ☐ sprite graphics
- ☐ multi-voice music
- ☐ boolean algebra

and much, much more.

Part One of the Introduction to BASIC course is split into fifteen units, Part Two into ten units. Each unit takes the average student one or two evenings to work through. Most units cover some reading, some practical work, some programming and a 'self test' questionnaire at the end of the unit. Each unit also contains some experiments. These have been designed to test the programmer's understanding of the commands under discussion.



SELF-TEST QUESTIONNAIRE

Two cassettes are provided for each section of the course – a total of 34 programs for the Commodore 64. These include educational and recreational programs as well as subroutines for the programmer to incorporate into his own work.

The Introduction To BASIC programming course will soon turn even the most novice computer user into a fully-fledged BASIC programmer.

An introduction to BASIC Part 2 – available in August.

Note: Part One and Part Two of Introduction to BASIC are sold as two separate packages.

Part One Product No. IB1 6420

Part Two Product No. IB2 6420

Specifications of software and hardware are correct at time of going to press, but are subject to alteration at any time.

**EASY SCRIPT** is a powerful word processing package. It enables you to create, modify and print text quickly and easily. Easy Script can be used for writing letters, reports, memos, book manuscripts – in fact any kind of document. Text can be stored on diskette or cassette so that it may be printed or modified as required.

- ☐ being able to view text before it is printed
- ☐ the facility to create a document from standard paragraphs
- ☐ the ability to produce personalized standard letters

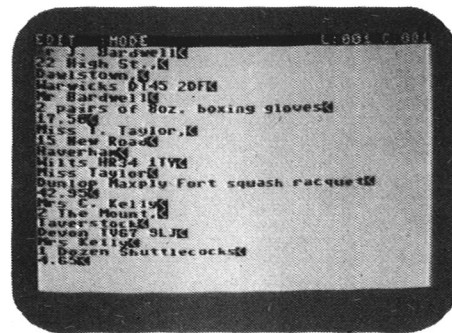
- ☐ set and adjust left and right margins
- ☐ align text at the righthand side of the page (justification)
- ☐ enable information to be printed at the top and/or bottom of each page
- ☐ number pages automatically
- ☐ give horizontal, vertical and decimal tabulation
- ☐ link text files together
- ☐ provide an automatic word search and replace function
- ☐ transfer and/or duplicate text
- ☐ insert, delete, erase and merge text

Although Easy Script has a wide range of commands, it is not necessary to know how to use all of them straight away. All except the very basic Easy Script commands need only be learned when it is necessary for a particular application. Unlike traditional typewriters, the line length for text is indicated in a format command allowing you to enter text in a 'free format' way, i.e. you simply type

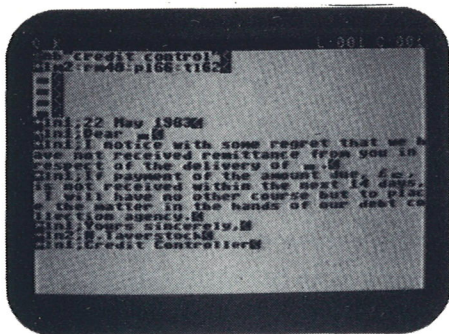
0. K. 1.001 C 001  
 011:letter b4  
 011:rw88-116-p162M  
 011:P. Peentiss.M  
 011:High St., M  
 011:Frenchtown, M  
 011:BarbadosM  
 011:13 May 1983M  
 011:Dear Sir,M  
 011:I am writing in reply to your letter  
 011:of the 23rd April re. floppy disks.M  
 011:These still have not arrived and cu-  
 011:stoms have no trace of their whereabouts  
 011:M  
 011:Can I suggest that you investigate  
 011:the matter further with the shippers.M  
 011:Yours sincerely,M  
 011:M. Marshall  
 011:pp D. Masters  
 011:Managing DirectorM

Mr. Brentise,  
52 High St.,  
Freetown,  
Barbados  
13 May 1983  
Dear Sir,  
I am writing in reply to your letter of  
the 23rd April re. floppy disks.  
These still have not arrived and  
customs have no trace of their  
whereabouts.  
Can I suggest that you investigate  
the matter further with the  
customs?  
Yours sincerely,  
H. Marshall  
pp B. Masters

A fill file is used to hold only that information which varies between each letter such as the name and address of a client. The following illustration shows the contents of a typical fill file as it would appear on the screen:

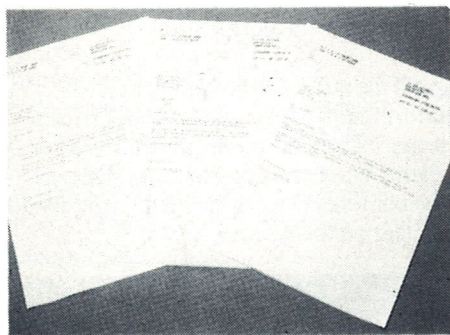


One standard letter is typed and, with a simple series of commands, Easy Script allows you to print copies of the letter using all or selected records from the fill file. A blank standard letter is shown overleaf.



STANDARD LETTER FOR USE WITH FILL FILE

The following illustration shows three personalized copies of the same standard letter:



THREE COPIES OF THE LETTER

## USING EASY SCRIPT WITH OTHER 64 SOFTWARE

One of the main attributes of Commodore 64 software is that different packages can be linked to each other and Easy Script is no exception. The EASY SPELL program allows the spelling in an Easy Script produced document to be checked and amended BEFORE it reaches its audience. Easy Script also enables you to extract records from the data base created by EASY FILE\* for insertion into reports, memos, etc. The CLUB MANAGER\* package allows you to create membership records and then generate subscription bills and mailing lists. One of these mailing lists can then be used as an Easy Script fill file enabling personalized mailings to be made to members.

The Easy Script word processor is invaluable for journalists, authors, secretaries, students, in fact anyone who writes either for business or pleasure. Used in conjunction with the Easy Spell spelling checker, Easy Script will quickly turn waste paper and correcting fluid into things of the past.

\* These programs will be available in August.

\*\* The cassette unit can only be used with the cartridge based version of Easy Script. The cartridge plugs directly into the Commodore 64, and will be available in September. Easy Script is currently available on diskette.

## HARDWARE REQUIREMENTS

- ☐ Commodore 64 computer
- ☐ a suitable TV or monitor
- ☐ a 1530 cassette unit\*\* or 1541 disk unit
- ☐ a printer

The 1541 disk unit can be replaced by a CBM 2031 single disk drive or a dual disk unit (4040/8050). These require the use of an IEEE interface.

### PRINTERS

Easy Script can be used with a variety of printers ranging from the low cost dot matrix type, such as the 1525 or 1526, to the more expensive letter-quality printers such as the CBM 6400. The latter requires an IEEE interface. Alternative printers supported by Easy Script include:

#### Commodore Printers

- ☐ 4022 and 4022P
- ☐ 8023P
- ☐ 8300
- ☐ 6400

These all require the use of an IEEE interface.

#### Other Printers

- ☐ DIABLO 630
- ☐ Smith Corona TP1 and EL2000
- ☐ OKI Microline
- ☐ MX 80

These require the use of a Commodore 1011A RS232C interface or equivalent. Easy Script also supports Centronics printers. These require a special connecting cable.

Product No. ESC 6440

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